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Report of the

EXPERT CONSULTATION ON IMPROVING PLANNING AND POLICY DEVELOPMENT IN AQUACULTURE

Rome, 26–29 February 2008

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FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
Rome, 2008

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PREPARATION OF THIS DOCUMENT

This is the final report of the Expert Consultation on Improving Planning and Policy Development in Aquaculture, held in Rome, Italy, from 26 to 29 February 2008.

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ABSTRACT

The Expert Consultation was convened by FAO in order to elaborate guidelines on how to improve the process of aquaculture policy formulation and policy implementation. The twenty-seventh session of the FAO Committee on Fisheries (COFI), held in Rome, Italy, in March 2007 and the third session of the FAO COFI Sub-Committee on Aquaculture, held in New Delhi, India, in September 2006, had both indicated that guidance was required on planning and policy formulation and implementation monitoring in the aquaculture sector.

The Expert Consultation had before it a comprehensive background document on the subject matter and recommended that two outputs be produced by FAO: (i) an FAO Fisheries Technical Paper on planning and policy formulation in aquaculture development that would include a full review of background information and the outcomes of the discussions held by the Consultation; and (ii) an FAO Technical Guidelines for Responsible Fisheries booklet on planning and policy development in aquaculture that would be a more concise document highlighting steps towards good planning, policy formulation and implementation for the sustainable development of the aquaculture sector.

The Consultation produced a detailed outline of the technical guidelines. It agreed on the definitions of policy, strategy and action plan and on the main phases of policy development processes. It highlighted the importance of considerations such as legitimacy, participation in such processes, but in specific circumstances, the inevitability of trade-offs and the possible resort to hard choices. In determining the link between policy formulation and policy implementation and the characteristics of strategies as a means for implementing policies, the Consultation emphasized that coordination was one of the most important component of the policy implementation discourse. The Consultation also made recommendations regarding future FAO work in supporting aquaculture policy development worldwide.

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OPENING OF THE MEETING AND ARRANGEMENTS FOR THE SESSION

1. The Expert Consultation on Improving Planning and Policy Development in Aquaculture was held in Rome, Italy, from 26 to 29 February 2008.

2. The list of Experts and other participants is shown in Appendix B. The documents which were made available for information for the Expert Consultation are listed in Appendix C.

3. The meeting was called to order by Mr Jean-François Pulvenis de Séligny, Director of the Fisheries and Aquaculture Economics and Policy Division of the Fisheries and Aquaculture Department, who delivered the opening statement. The text of his statement is reproduced in Appendix D.

4. Mr Svein Munkejord, Senior Adviser, Directorate of Fisheries, Norway, was elected Chairperson of the Consultation. The Consultation selected Ms Nancy Gitonga, Fisheries Consultant and retired Director of Fisheries in Kenya, as its Vice-Chairperson.

5. The Consultation adopted the agenda shown in Appendix A.

BACKGROUND, OBJECTIVES AND EXPECTED OUTCOMES OF THE EXPERT CONSULTATION

6. In introducing this agenda item, the Secretariat recalled that the holding of this Consultation constituted a direct response to the recommendation of the third session of the FAO COFI Sub-Committee on Aquaculture (New Delhi, India, September 2006). Such request stemmed from the recognition that the aquaculture sector was experiencing a fast, yet in some places, uncoordinated growth. The reason was also that with more suitable planning and policies, the sector could perform better, benefit more people with a reduced risk of detrimental effects on the environment and overall would contribute to poverty alleviation. FAO Members which were present at the Sub-Committee session recognized that capacity to plan and implement policies was limited and that guidance was required on the most appropriate planning methods and policy contents to support the sustainable development of aquaculture. The Secretariat outlined the expected outcome of the Consultation, namely recommendations on how to best plan for aquaculture development and how to implement policies. It was highlighted that the expected output was a meeting report and a draft outline for technical guidelines on how to improve the process of aquaculture policy formulation and policy implementation. The presentation was followed by a brief discussion whereby clarifications on the target audience for technical guidelines were provided and general comments relating to the range of challenges faced in aquaculture planning processes were made.

INTRODUCTION OF THE BACKGROUND DOCUMENT, CASE STUDIES AND ISSUES TO ADDRESS IN AQUACULTURE POLICY FORMULATION AND IMPLEMENTATION

7. The contents of the background document on "Planning and policy formulation in aquaculture development", prepared by Poseidon Aquatic Resource Management Ltd with inputs from the staff of the Economics and Policy Division of the FAO Fisheries and Aquaculture Department, were presented to the Consultation. It was emphasized that the background document was not a blueprint and suggestions were captured on ways to improve the contents of various sections of the document. Key points of the discussion that followed related to the order of policy formulation (from a vision, to strategy to action plans, although it was argued that such an order was not necessarily rigid, with for example visions being formulated as a result of policy development), the nature of the participation and consultation in the policy formulation and implementation process, the place of legislation, and human and institutional capacities in such a process.

8. Seven case studies were presented by experts. They discussed the planning and evolution of aquaculture policy development in the European Union, Norway, Kenya, South Africa and Chile, the effect of government policies and measures on the private sector in Egypt and the role of a regional organization on impacting aquaculture development and related policies. Clarifications and personal opinions were sought on the perceived efficiency and effectiveness of the policy formulation processes undertaken and on the potential for outsiders to influence governments. Case studies illustrated the range of constraints to be addressed by aquaculture policies, such as the lack of coordination among actors/drivers both within governments and between governments and the private sector, and limitations in support services to the aquaculture sector (feeding, breeding, research, extension, etc.). Examples of measures put in place to support the development of aquaculture and an analysis of their efficacy were also provided.

AQUACULTURE POLICY FORMULATION

9. This agenda item was introduced by one of the experts to share his experience in using the Delphi technique for facilitating stakeholder participation in aquaculture development processes and to discuss the approach as a policy formulation tool. The main objective of the Delphi technique, which can be conducted at a meeting, workshop, by mail or online, is to ensure a wide participation of stakeholders in the decision-making and to build consensus before a decision is made. Advantages and limitations of the technique, as well as their mitigating measures were highlighted and discussed in greater depth with the rest of the Consultation.

10. Within this agenda item, the definitions of policy, strategy and action plan as well as the main phases of policy development processes, which include policy initialization, definition of policy objectives, the methodologies of policy development and the importance of consensus building, were discussed by the Consultation.

11. After some discussion, the Consultation agreed that:

a. An aquaculture policy consists of a broad vision for the sector, reflecting its directions, priorities and development goals at various levels including provincial, national, regional and international.
b. A strategy represents a roadmap for the implementation of a policy and contains specific objectives, targets and instruments to address issues which might stimulate or impede the comparative advantage of the sector and obstruct its development.
c. An action plan represents a roadmap for the implementation of a strategy, that is, to achieve its objectives and implement strategy instruments. It is time-bound, contains specific programmes and activities and details the resources required to achieve them.

12. The Consultation recognized that policy objectives are often qualitative while strategies can be either qualitative or quantitative or both.

13. Key points raised included legitimacy issues (of both the planning process itself and of the decisions made), elicitation of the voices of minority groups and their participation in policy formulation, limits to fully-fledged consultation processes and trade-offs related to achieving full consensus. The need for alternative options or even hard choices when necessary was re-affirmed and the identification of a lead agent/competent authority in the whole process of policy development (from initialization to implementation) was emphasized. The need for acceptable end-points to the consultation process in terms of who should participate in the consultation process, how and when, was also highlighted.

AQUACULTURE POLICY IMPLEMENTATION

14. The Consultation agreed that the agenda item related to policy contents and the choice of appropriate instruments to implement policies should focus on determining the link between policy formulation and policy implementation and on the characteristics of strategies as a means for implementing policies.

15. The Consultation emphasized that coordination was one of the most important component of the policy implementation discourse as coordination is needed everywhere: in research, extension, legislation, between the public and private sectors and amongst donors.

16. The Consultation agreed that effective aquaculture policy implementation also required paying attention to: subsidiarity and decision-making at lower levels, human and institutional capacity building in terms of skills required for implementing policies and establishment of responsibilities and mandates for institutions, needs-driven research, balance between externally (donor)-funded and nationally-funded activities, legislation mixing sanctions with rewarding mechanisms, communication and publication of completed policies and strategies, and evaluation of the cost-effectiveness of implementation instruments.

DRAFTING OF AN OUTLINE FOR TECHNICAL GUIDELINES ON IMPROVING POLICY FORMULATION AND IMPLEMENTATION FOR AQUACULTURE DEVELOPMENT

17. The elaboration of the outline for Technical Guidelines on Improving Policy Formulation and Implementation for Aquaculture Development was based on the case studies, the background document and deliberations during the Consultation on recurring issues faced during policy formulation and implementation. For each issue, a general guiding statement, or "guideline", was first formulated, and under each guideline, a number of practical steps were recommended. The Consultation followed a step by step process, with a degree of review, to agree on the exact terminology to be used and ensure the clarity, consistency and coherence of the guidelines and recommendations formulated.

18. The Consultation agreed on the need to present definitions in the preamble section of the technical guidelines.

19. The Consultation also agreed that the technical guidelines should:
   a. remain broad enough to cover all situations; thus, the Consultation found it unsuitable to recommend specific policy implementation measures and instruments;
   b. be kept simple and self-contained.

20. The completed outline for technical guidelines is provided in Appendix E.

RECOMMENDATIONS

21. The Consultation recommended the following immediate actions to FAO:
   a. Finalization of the drafted outline for technical guidelines and presentation at the next session of the Sub-Committee on Aquaculture, in Puerto Varas, Chile, in October 2008. In this regard, the Consultation recommended that the FAO Secretariat check and report back on the formal procedure to follow to obtain Members' approval prior to the publication of the final Technical Guidelines.

b. Consolidation and rationalization of the contents of the background document, for separate publication, in the light of the outcomes of this Consultation, with the inclusion of case studies, lessons learnt, and the experts' comments.

22. The Consultation also recommended that FAO undertake the following important work:

a. Gathering and compilation of case study information, "best practices" in policy formulation and implementation, analyses (including cost/benefit) of the efficiency of policy implementation instruments in specific contexts.
b. Documentation of success stories relating to aquaculture in a manner applicable to different audiences with a view of impacting on, and improving, policy development.
c. Creation of a repository for such information to facilitate its access by interested parties and information sharing.
d. Further analysis and assessments on the use of stakeholder participation methods in policy formulation.

ADOPTION OF THE REPORT

23. This report was adopted on 29 February 2008.

APPENDIX A

Agenda

1. Opening
2. Election of chairperson and adoption of agenda
3. Background, objectives and expected outcomes of the Expert Consultation
4. Introduction of the background document, case studies and issues to address in aquaculture policy formulation and implementation
5. Planning processes for aquaculture policy formulation: discussion and outline for guidelines
6. Contents and instruments for policy implementation: discussion and outline for guidelines
7. Institutional requirements and arrangements for policy implementation: discussion and outline for guidelines
8. Recommendations
9. Adoption of the report

APPENDIX B

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APPENDIX C

List of documents

Expert Consultation documents

Provisional agenda
Draft background document entitled "Planning and policy formulation in aquaculture development"

Documents made available (supporting information)

FAO Fisheries Technical Paper 408/1 (2001): Promotion of sustainable commercial aquaculture in sub-Saharan Africa. Volume 1: Policy framework.

FAO Fisheries Technical Paper 408/2 (2002): Promotion of sustainable commercial aquaculture in sub-Saharan Africa. Volume 2: Investment and economic feasibility.

FAO Fisheries Technical Paper 408/3 (2001): Promotion of sustainable commercial aquaculture in sub-Saharan Africa. Volume 3: Legal, regulatory and institutional framework.

FAO Fisheries Technical Paper 427 (2003): Aquaculture development in China: The role of public sector policies.

FAO Fisheries Circular 1001 (2004): Global aquaculture outlook in the next decades: An analysis of national aquaculture production forecasts to 2030.

Bunting, S.W. In press. Horizontally integrated aquaculture development: Exploring consensus on constraints and opportunities with a stakeholder Delphi. Aquaculture International.

Mathiesen, C., Griffiths, D., Dan, N.C., Dung, L.T.C., Fjalland, J., Huong, H.C., Tung, D.D., Hai, N.T. and Hung, N.H. (2008). Developing guidelines for sustainable freshwater aquaculture planning in Viet Nam. Aquaculture Asia, 13(1): 3-6.

Norton, R.D. (2004). Agricultural Development Policy. Concepts and Experiences. John Wiley & Sons, Chichester.

APPENDIX D

Opening statement by Mr Jean-François Pulvenis de Séligny
Director of the Fisheries and Aquaculture Economics and Policy Division
FAO Fisheries and Aquaculture Department

Ladies and Gentlemen,

It is my pleasure to welcome you all, on behalf of the Director General of FAO, Dr Jacques Diouf, to Rome and to the FAO headquarters. I am very grateful that you have accepted to serve as experts in this Consultation. I would also like to express my thanks to your organizations or governments which have agreed to your participation.

Let me give you a brief background to the convening of this Expert Consultation. At the third session of the FAO Committee on Fisheries Sub-Committee on Aquaculture, held in September 2006, Members stressed the importance of the issue of adequate planning in aquaculture to respond to the fluctuations and pressures that confront the sector. In particular, they emphasized the importance of:

a. Integrated approaches to the development of the sector, in particular as a means to overcome concerns related to the unsustainable development of the sector and to harmonise legislation among the various layers of government.
b. The need to encourage the broad participation of stakeholders in planning processes, including the public, communities, industries and other sectors sharing the same resources as aquaculture.
c. The need for aquaculture development plans to respect national development frameworks and international agreements.

Members requested that the Fisheries and Aquaculture Department of FAO pursue its work related to the provision of **guidelines on planning and policy formulation and implementation monitoring in the aquaculture sector**, and continue its support to develop policies and strategies at national levels. To this end, the Sub-Committee recommended that an Expert Consultation on "Improving planning and policy development in aquaculture" be organised during its inter-session with planners, social scientists and aquaculture professionals. Furthermore, the need for improving aquaculture planning and policy development at national and regional levels was reiterated at the twenty-seventh session of the Committee on Fisheries, which met in Rome on 5 to 9 March 2007.

Despite the fast growth of the aquaculture sector worldwide and its potential to make significant contributions to development by increasing protein supply, improving incomes, providing employment opportunities and increasing returns on resource use, adequate planning and policy formulation in the aquaculture sector have been hampered by factors relating to limited human and institutional capacities, confusion over terminology and requirements, weak planning processes and information gaps. Concerns have also been voiced over the fact that not all policies reach down to grass-root levels, and that the complexity of national legal and administrative frameworks can be an obstacle to policy implementation.

This Expert Consultation has been convened to respond to these challenges and address these issues. We expect and hope that it will significantly advance the discussions on the most appropriate planning methods and policy contents to support the sustainable development of aquaculture at micro and macro levels.

As part of this work, a background document has been made available to you and will form an important basis of your work during the coming four days.

For those of you who are not familiar with FAO rules and procedures, I should perhaps clarify your role in this Expert Consultation, which you attend in your individual capacity and not as representative of your government or organization. In this line, there is no difference in status between those of you who work with government or those of you who work with a private or non-governmental entity.

Your task over the coming four days is to advise the FAO Fisheries Department and, through it, the next session of the sub-Committee on Aquaculture, which will be held in October 2008, on the possible means by which planning and policy development in the aquaculture sector can be improved.

I hope you will have an enjoyable stay in Rome in spite of all the work to be done. I wish you fruitful deliberations over the coming days and look forward with interest to the results of your work.

Thank you very much, Ladies and Gentlemen, for your attention.

APPENDIX E

Proposed outline for the FAO Technical Guidelines on Improving Planning and Policy Formulation and Implementation for Aquaculture Development

PREAMBLE

Definitions (preliminary)

- **Action plan:** time-bound, resourced plans to achieve strategy objectives and implementation of strategy measures.
- **Competent authority:** a legally recognized entity formally designated to exercise a particular function.
- **Expert:** is someone widely recognized as a reliable source of technique or skill whose faculty for judging or deciding rightly, justly or wisely is accorded authority and status by their peers or the public.
- **Guideline:** a recommendation that leads or directs a course of action to achieve a certain goal.
- **Legal frameworks:** all instruments having a legal effect. An aquaculture legal framework should be understood as a body of law that supports aquaculture development and management by *inter alia* according powers, rights and responsibilities, defining relationships between different persons and entities in the sector and setting out the mechanisms for solving differences and enforcement of rights and responsibilities that are accorded.
- **Measure:** any manœuver made as part of progress towards a goal.
- **Participation:** in a development context participation, it often has many interpretations, however, initiatives and activities in support of sustainable and equitable aquaculture development should strive for interactive participation. According to Pretty (1995)[1], this occurs when "People participate in joint analysis, development of action plans and formulation or strengthening of local institutions. Participation is seen as a right, not just the means to achieve project goals. The process involves interdisciplinary methodologies that seek multiple perspectives and make use of systemic and structured learning processes. As groups take control over local decisions and determine how available resources are used, so they have a stake in maintaining structures and practices".
- **Policy:** a broad vision for a sector, reflecting its directions, priorities and development goals at various levels including provincial, national, regional and international.
- **Policy formulation:** the processes by which governments translate their political vision into programmes and actions to deliver desired changes in the real world.
- **Research:** a formal, systematic application of the scientific approach to the study of a problem to discover new information or expand and verify existing knowledge. For the present purpose, it covers biological, environmental, technical, market, economic, social and other relevant disciplines.
- **Societal levels**
- **Stakeholder:** an institution, organization, group or individual contributing to, or affected by, wealth-creating activities, and who is therefore a potential beneficiary, risk bearer and/or indirectly affected.
- **Strategy:** a roadmap for the implementation of a policy that contains specific objectives, targets and instruments to address issues which might stimulate or impede the comparative advantage of the sector and obstruct its development.
- **Subsidiarity:** the principle that a central authority should have a subsidiary function, performing only those tasks which cannot be performed effectively at a more immediate or local level.

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[1] Pretty, J.N. 1995. Participatory learning for sustainable agriculture. World Development, 23(8), 1247-1263

THEME 1: POLICY FORMULATION PROCESS

The Consultation recognized the following as the major issues that would be deliberated on:

1. What factors might initiate a need for policy development or review?
2. Who will lead the process? Who is the "champion" or "agent of change" (relevant to all levels) and/or the organization who will actually implement the process?
3. Can we adopt existing policy formulation methodologies instead of reinventing the wheel? – or is a blueprint not possible?
4. What mix of top-down and bottom-up approaches can be adopted? What is the right balance of expert/stakeholder involvement?
5. Which methods and tools can be used for stakeholder analysis?
6. Consensus, alternative options – or hard choices?

Guideline 1.1: Aquaculture policy should reflect relevant national, regional and international development goals and agreements. Therefore it may be necessary to[2]:

- Conduct a periodic review of aquaculture policy effectiveness and supporting legislation in order to identify and address needs, constraints and to ensure consistency.
- Monitor the external policy environment relevant to aquaculture, e.g. capture fisheries, water management, trade, environmental management, food processing and safety, animal health and safety, etc.
- Reflect regional and international obligations and standards (e.g. CCRF) in aquaculture policy.

Guideline 1.2: The aquaculture sector should be enabled to develop optimally and sustainably. Therefore it may be necessary to:

- Proactively identify opportunities and constraints to aquaculture development resulting from policy gaps or failures (e.g. via a strengths, weaknesses, opportunities and threats (SWOT) analysis, risk assessment or other analytical method) and address these through policy change.
- Recognize changes in markets, trade issues, technological possibilities and other development opportunities (e.g. species, etc.) need and responded accordingly.
- Consider and reconcile the conflicting use of resources needed for aquaculture development.

Guideline 1.3: A legitimate and competent authority should lead the policy development process. It is therefore important to consider that:

- If such an entity does not exist, it may be necessary to establish it.
- If such an entity exists but does not have the capacity, it may choose to nominate external capacity to implement the process on its behalf and under its supervision.
- The legitimate and competent authority should consider the formation of a specific task force of working groups to facilitate the process and steering committees to provide the necessary overview. Such groups should be suitably representative and may be either thematic or multidisciplinary.

[2] Note that the recommendations under each guideline are not necessarily listed by priority.

Guideline 1.4: General policy formulation approaches from other relevant sectors could be adopted and adapted for aquaculture purposes. Therefore it may be necessary to:

- Identify and adapt documented policy development processes having been utilized in other relevant sectors (e.g. those utilizing other natural resources) or other aquaculture policy formulation approaches in common environments and settings nationally, regionally and internationally.
- Select methodologies that accommodate both bottom-up and top down approaches.

Guideline 1.5: Consultation with stakeholders should be as extensive as possible. Therefore it may be necessary to:

- Identify the stakeholders involved and analyse the characteristics of the stakeholder environment (e.g. number, diversity, culture, literacy, geographical distribution, etc.) in order to determine the most appropriate participatory approach for maximizing engagement and interaction.
- Explore, where necessary, the opportunities to participate (e.g. clusters, associations, road shows, etc.) that help ensure less vocal views are not excluded.
- Substantiate the legitimacy of stakeholders and ensure that their contribution is proportional to their overall role in the sector.
- Establish transparent procedures for the convening of meetings and reporting, with appropriate means for the timely dissemination of outputs.
- Define the purpose, relevance and endpoint of the consultation process.
- Give appropriate regard to the cost-effectiveness of different approaches to such stakeholder participation.
- Allocate sufficient time to capture stakeholder considerations in policy formulation, taking into account the trade-off between the extent of participation and the limitations in time and financial resources.

Guideline 1.6: Policy development based on consensus is desirable. Therefore it may be necessary to:

- Define consensus, and agree on how it is measured and the levels of acceptability.
- Ensure that where consensus is reached, it is compatible with policy objectives.
- Consider realistic policy options and alternative conflict resolution strategies where consensus is not achievable.
- Document fully the stakeholder process to reflect the evolution of stakeholder views and their integration into the planning process.

THEME 2: POLICY IMPLEMENTATION PROCESS

The Consultation recognized the following as the major issue that would be deliberated on:

1. How to make a policy (vision) become reality?

Guideline 2.1: Implementation of policy should be operationalized through a set of well-defined strategies and action plans. Strategies and action plans should:

- Reflect both short-term and long-term policy goals as well as provide priorities for action.
- Be consistent with the overarching vision of the policy framework for environmental, economic and social development in general.
- Be subjected to suitable assessment (i.e. an appropriate degree of social and economic impact and cost-benefit analysis to maximize their efficacy, effectiveness and relevance).
- Define and agree on public and private sector responsibilities that are realistic, achievable and ensure coherence between them.
- Encourage procedural simplicity and transparency for governance of the aquaculture sector.
- Be formally launched and made publicly available and accessible in a timely fashion.

THEME 3: SUPPORTING POLICY IMPLEMENTATION

The Consultation recognized the following as the major issues that would be deliberated on:

1. Communication and cooperation between institutions.
2. The human and institutional capacity to reflect sectoral needs.
3. Resources available to implement policy.
4. Presence of a legal framework to support policy development and implementation.
5. Information needs to support sustainable development.
6. Continuity in the face of political change.
7. Monitoring and evaluation of policy processes and impacts.
8. Instruments can fail – what to do? Could this be anticipated?

Guideline 3.1: Effective implementation of aquaculture policy requires systematic coordination, communication and cooperation between institutions, tiers of governments, producers and other stakeholders. Therefore it may be necessary to:

- Ensure that the roles and responsibilities of government, private institutions, other stakeholders and donors for policy implementation are explicit, accountable and where necessary, supported by a legal framework.
- Agree on a lead agency with an intersectoral legitimacy and agreed mandate to reduce intragovernmental competition and promote efficient resource allocation.
- Establish effective coordination in research, legislation, extension, etc. between local and provincial governments at national level, as well as regional commissions and other countries in order to facilitate policy implementation.
- Disseminate adequate information on matters related to policy in a timely and accessible manner to all relevant stakeholders. The channels for the dissemination of this information should be predefined and well publicized.

Guideline 3.2: Where possible, decisions should be taken by the lowest level competent authority according to the principle of subsidiarity. Where possible:

- Policy implementation should be as much as possible informed by local circumstances, knowledge and concerns.
- Criteria should be created in advance for making decisions and ensure their approval by the appropriate competent authority.
- Consider that in some circumstances, higher-level decision-making might be necessary where wider interests are at stake.

Guideline 3.3: The development of human and institutional capacity should reflect sectoral needs (e.g. producer, research, management, trade development, regulatory and associated societal levels). Therefore it may be necessary to:

- Conduct a capacity needs analysis against allocated roles in the policy implementation process.
- Ensure that capacity development address a wide range of individuals, organizations and societal levels and their networks
- Identify and address short-term capacity constraints and long-term capacity issues.
- Ensure that institutions undergo periodic assessment to make sure that they remain robust, relevant and effective in relation to current policy.

Guideline 3.4: In order to effectively implement policy, adequate resources need to be identified and allocated. Therefore it may be necessary to:

- Clearly identify and define priority actions, estimate costs and allocate appropriate resources.
- Identify opportunities and mechanisms (i.e. licensing, permitting, etc.) to allow the sector to contribute to meeting its own costs, with a long-term goal of greater sectoral self-sufficiency. However it is recognized that ongoing public support for small-scale aquaculture may be necessary (e.g. research, extension, micro-credit support, etc., as well as longer-term capacity building).
- Ensure that policy delivery is not unduly influenced by the vested interests of external funding sources.
- Support the aquaculture sector through appropriate arrangements for essential support services (e.g. health certification).

Guideline 3.5: Policy development and implementation should be supported by a suitable legal framework. It may be necessary to:

- Conduct periodic reviews of legislation to assess relevance, effectiveness and conflicts of aquaculture and other relevant legislation relative to policy goals.
- Keep prohibitions and sanctions to the minimum in order to avoid unnecessary restrictions to aquaculture development.
- Develop legislation to secure user rights and responsibilities (e.g. traditional rights as well as tenure mechanisms for leasing water bodies for aquaculture).
- Quantify the costs and benefits of regulation to ensure their efficacy prior to enactment.
- Ensure that there is a wide level of sectoral input into legislation development.
- Allocate adequate resources to the enforcement and compliance of sectoral legislation.
- Ensure that legislation clearly delimitates the mandate of key players in aquaculture development.

Guideline 3.6: Incentives, where appropriate, should be used to encourage good practice throughout the sector. In such cases:

- Enshrine in the legal framework economic and other incentives for good practices to ensure continuity in the face of political change.

Guideline 3.7: Aquaculture policy implementation should be supported by appropriate research. It should be considered that:

- Funding of research should reflect producer priorities and concerns.
- The outputs of research should be as widely disseminated as possible, although it is recognized that some research will be proprietorial.
- Research should be coordinated in order to minimize duplication and maximize efficacy.
- Where appropriate, regional and international cooperation should be encouraged to combine experience, transfer knowledge and reduce costs.
- Mechanisms should be developed for improving feedback between farmers, extension services and researchers and *vice versa*.

Guideline 3.8: The impact of policy implementation should be monitored and evaluated to ensure that future policy development remains relevant and effective. Therefore it may be necessary to:

- Establish measurable indicators (qualitative and quantitative) for the monitoring of policy inputs and impacts.
- Allocate the financial means for the monitoring and evaluation of policy processes and impacts.
- Put in place mechanisms for utilizing impact analyses results (ex-ante baseline evaluation, recurrent and ex-post) and feeding these back to the policy formulation process (including strategy).

The Expert Consultation was convened by FAO upon recommendation of the twenty-seventh session of the FAO Committee on Fisheries (COFI), in 2007, and the third session of the FAO COFI Sub-Committee on Aquaculture, in 2006, in order to elaborate guidelines on how to improve the process of aquaculture policy formulation and policy implementation.

The Expert Consultation recommended that two outputs be produced by FAO: (i) an FAO Fisheries Technical Paper on planning and policy formulation in aquaculture development; and (ii) an FAO Technical Guidelines for Responsible Fisheries booklet on planning and policy development in aquaculture.

The Consultation produced a detailed outline of the technical guidelines. It agreed on the definitions of policy, strategy and action plan and on the main phases of policy development processes. It highlighted the importance of considerations such as legitimacy, participation in such processes, but in specific circumstances, the inevitability of hard choices. The Consultation emphasized that coordination was one of the most important component of the policy implementation discourse. The Consultation also made recommendations regarding future FAO work in supporting aquaculture policy development worldwide.

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